Oregon Institute of Technology
Computer Systems Engineering Technology Department
Software Engineering Technology Program Assessment Plan
2013-2014

I. Introduction

The Software Engineering Technology (SET) program was implemented in Klamath Falls in 1984 and was initially accredited by TAC of ABET in 1991. The Portland program was established in Fall 1996 under the same accreditation and is currently located on the Wilsonville campus. The Associate degree was accredited by TAC of ABET in 2009. The program has continuously evolved as industrial changes have warranted.

A. Enrollment

Table 1.1 shows the number of students that have listed Software Engineering Technology (SET) as their major at the end of Week 4, Fall Term 2013.

Table 1.1 SET Enrollment Data Fall 2013

Campus	Frosh.	Soph.	Junior	Senior	Masters	PostBac	NonAdmit-UG	NonAdmit-G	Total
Klamath	33	27	25	39	0	2	1	0	**127**
Wilsonville	8	10	21	37	0	16	3	0	**95**
Totals	**41**	**37**	**46**	**76**	**0**	**18**	**4**	**0**	**222**

Table 1.2 shows the number of students that have designated that they are pursuing a concurrent degree with the Computer Engineering Technology (CET) program as their major at the end of Week 4, Fall Term 2013.

Table 1.2 Concurrent SET and CET Enrollment Data Fall 2013

Campus	Frosh.	Soph.	Junior	Senior	Masters	PostBac	NonAdmit-UG	NonAdmit-G	Total
Klamath	2	11	6	13	0	0	0	0	**32**
Wilsonville	na	na	na	na	na	na	na	na	**na**
Totals	**2**	**11**	**12**	**13**	**0**	**0**	**0**	**0**	**32**

B. Retention

The following retention data in Table 1.3 shows the percentage of students that returned to the program for their second year. This is data is only for the Klamath Falls campus.

Table 1.3 Klamath Retention Data

	Returning		
	N	Y	Total
2009	10	63	73

	13.70%	86.30%	100.00%
2010	20	54	74
	27.03%	72.97%	100.00%
2011	13	61	74
	17.57%	82.43%	100.00%
2012			

C. Employment Data

The data shown in Table 1.4 shows the data collected on the student graduate survey. This information is for the Bachelor degree only.

Table 1.4 Bachelor Degree Employment Data

Campus	Year	Number of Respondents	Full-time Employed	Employment Not Reported	Average Salary	Maximum Salary
Klamath	2013	24	21	3	65.16	100,000.00

The data shown in Table 1.5 shows the data collected on the student graduate survey. This information is for the Associate degree.

Table 1.5 Associate Degree Employment Data

Campus	Year	Number of Respondents	Full-time Employed	Employment Not Reported	Average Salary	Maximum Salary
Klamath	2010	0	0	0	NA	NA

II. Mission, Objectives and Student Learning Outcomes

On January 13, 2014, the software faculty reviewed and approved its program mission, objectives and student learning outcomes. The program faculty felt that no changes were required.

The mission statement, objectives and program outcomes for the baccalaureate program are located on the OIT website at www.oit.edu/provost/learningoutcomes/cset/swbs. The associate program's mission statement, objectives and program outcomes are located at www.oit.edu/provost/learningoutcomes/cset/swae.

Bachelor Program Mission

The mission of the Software Engineering Technology (SET) Bachelor's Degree program within the Computer Systems Engineering Technology (CSET) Department at Oregon Institute of Technology is to prepare our students for productive careers in industry and government by providing an excellent education incorporating industry-relevant, applied laboratory based instruction in both the theory and application of software engineering. The program is to serve a constituency consisting of our alumni, our employers, and our Industrial Advisory Board. Major components of the SET program's mission in the CSET Department are:

 I. To educate a new generation of Software Engineering Technology students to meet current and future industrial challenges and emerging software trends.

 II. To promote a sense of scholarship, leadership, and professional service among our graduates.

 III. To enable our students to create, develop, apply, and disseminate knowledge within the software development environment.

 IV. To expose our students to cross-disciplinary educational programs.

 V. To provide government and high tech industry employers with graduates in software engineering and "related professions".

Bachelor Program Educational Objectives

The Program Educational Objectives of OIT's Software Engineering Technology program are to produce graduates that:

 A. Use their knowledge of engineering to creatively and innovatively solve difficult computer systems problems.

 B. Regularly engage in exploring, learning and applying state-of-the-art hardware and software technologies to the solution of computer systems problems.

C. Will be an effective software development team member that contributes innovative software design solutions to the resolution of business, scientific or government computer systems problems.

D. Will communicate effectively and successfully, both individually and within multi-disciplinary teams.

Bachelor Program Student Learning Outcomes

Software Engineering Technology baccalaureate graduates will have demonstrated:

1. an ability to identify, formulate, and solve software engineering problems, including the specification, design, implementation, and testing of software systems that meet specification, performance, maintenance and quality requirements for a major software project (Program Objective A, B, and C);

2. the ability to elicit, analyze and specify software requirements through a productive working relationship with various stakeholders of the project (Program Objective A and C);

3. an understanding of the core areas of software engineering. (data structures, theory of computation, operating systems, compilers, programming languages, computer architecture). (Program Objective A);

4. an ability to function effectively on teams (Program Objective A, C and D);

5. an understanding of professional, ethical and social responsibility (Program Objective C);

6. a recognition of the need for, and an ability to engage in life-long learning (Program Objective C);

7. knowledge of and ability to apply discrete math, probability and statistics (Program Objective B);

8. an ability to convey technical material through oral presentation and interaction with an audience (Program Objective A, C and D);

9. an ability to convey technical material through written reports which satisfy accepted standards for writing style (Program Objective A, C and D);

10. an ability to evaluate the impact of potential solutions to software engineering problems in a global society, using their knowledge of contemporary issues and emerging software engineering trends, models, tools, and techniques (Program Objective A and C);

Associate Program Mission

The mission of the Software Engineering Technology (SET) Associate Degree program within the Computer Systems Engineering Technology (CSET) Department at Oregon Institute of Technology is to prepare our students for entry level careers in the software industry and government by providing applied laboratory based instruction. The program is to serve a constituency consisting of our alumni, our employers, and our Industrial Advisory Board. Major components of the SET program's mission in the CSET Department are:

I. To provide a new generation of Software Engineering Technology students with a solid background in computer programming.

II. To enable our students to create, develop and apply knowledge within a technical software environment.

III. To provide government and high tech industry employers with entry level graduates in computer programming and related professions.

Associate Program Educational Objectives

The Program Educational Objectives of OIT's Software Engineering Technology program are to produce graduates that:

A. Assist in solving computer systems problems using their knowledge of computer programming.

B. Regularly engage in learning and applying state-of-the-art hardware and software technologies to the solution of computer systems problems

C. Will communicate effectively and successfully in the workplace.

Associate Program Outcomes

Software Engineering Technology associates graduates will have demonstrated:

1. an ability to identify, formulate, and solve computer programming problems, including the specification, design, implementation, and testing of programs that meet specification, performance, maintenance and quality requirements (Program Objective A, B, and C);

2. an understanding of the core areas of software engineering (data structures and programming languages). (Program Objective A);

3. an understanding of professional, ethical and social responsibility (Program Objective B);

4. a recognition of the need for, and an ability to engage in life-long learning (Program Objective B);

5. an ability to communicate through oral presentation and interaction with an audience (Program Objective B);

6. an ability to convey technical material through written reports which satisfy accepted standards for writing style (Program Objective C);

III. Three-Year Cycle for Assessment of Student Learning Outcomes

The department assesses the program educational objectives and student learning outcomes on a three-year cycle. During the six-year ABET cycle, the objectives and learning outcomes will thus be fully assessed twice.

All appropriate accreditation documents are housed on a SharePoint site maintained by the department. All department members have access to this site, but the documents are not viewable by the general public. The public can view the baccalaureate outcomes at www.oit.edu/provost/learningoutcomes/cset/swbs and the associate outcomes at www.oit.edu/provost/learningoutcomes/cset/swbs.

Bachelor Degree Assessment Cycle

Table 3-1: Baccalaureate Outcome Assessment Timeline

#	Learning Outcomes	12-13	13-14	14-15	15-16	16-17	17-18
1	an ability to identify, formulate, and solve software engineering problems, including the specification, design, implementation, and testing of software systems that meet specification, performance, maintenance and quality requirements for a major software project	X					
2	the ability to elicit, analyze and specify software requirements through a productive working relationship with various stakeholders of the project			X	X		X
3	an understanding of the core areas of software engineering			X	X		X
4	an ability to function effectively on teams	X(I)					
5	an understanding of professional, ethical and social responsibility	X(I)					
6	a recognition of the need for, and an ability to engage in life-long learning		X			X(I)	
7	knowledge of and ability to apply discrete math, probability and statistics			X	X		X(I)
8	an ability to convey technical material through oral presentation and interaction with an audience		X			X(I)	
9	an ability to convey technical material through written reports which satisfy accepted standards for writing style		X			X(I)	
10	an ability to evaluate the impact of potential solutions to software engineering problems in a global society, using their knowledge of contemporary issues and emerging software engineering trends, models, tools, and techniques		X				

Note: (I) represents an ISLO to be assessed.

Associate Degree Assessment Cycle

Table 3-2: Associate Outcome Assessment Timeline

#	Learning Outcomes	12-13	13-14	14-15	15-16	16-17
1	an ability to identify, formulate, and solve computer programming problems, including the specification, design, implementation, and testing of programs that meet specification, performance, maintenance and quality requirements	X			X	
2	an understanding of the core areas of software engineering			X		
3	an understanding of professional, ethical and social responsibility	X(I)			X(I)	
4	a recognition of the need for, and an ability to engage in life-long learning		X			X
5	an ability to communicate through oral presentation and interaction with an audience		X			X
6	an ability to convey technical material through written reports which satisfy accepted standards for writing style		X			X

Note: (I) represents an ISLO

IV. Summary of Assessment Activities

From the three years cycle matrix, the 2013-2014 outcomes are extracted, courses/instructors are chosen and specific assignments are given to assess the outcomes. Table 4.1 and 4.2 below outline the assignments for 2013-2014 for respectively Klamath Falls and Wilsonville campuses.

#	Bachelor Degree Learning Outcome	Direct#1	Direct#2	Indirect
6	a recognition of the need for, and an ability to engage in life-long learning	Course- cst415 Instructor-Long Assignment-Lifelong Learning Paper **COMPLETED F'13**	Course- cst105 Instructor-Nguyen Assignment-Life Long Learning Paper **COMPLETED SP'14**	Exit Survey-**COMPLETED, Fall '13**
8	an ability to convey technical material through oral presentation and interaction with an audience	Course- cst412 Instructor-Caldwell Assignment-Project Proposal **COMPLETED F'13**	Course- CST 238 Instructor-Bishop Assignment-Ptesent **Completed SP '14** Course- cst105 Instructor-Nguyen Assignment-Project Presentation **COMPLETED SP'14**	Exit Survey-**COMPLETED, F '13**
9	an ability to convey technical material through written reports which satisfy accepted standards for writing style	Course- cst415 Instructor-Long Assignment-Lifelong Learning Paper **COMPLETED F'13**	Course- CST105 Instructor-Nguyen Assignment-Paper **COMPLETED SP'14**	Exit Survey-**COMPLETED F '13**

		Direct#1	Direct#2	Indirect
10	an ability to evaluate the impact of potential solutions to software engineering problems in a global society, using their knowledge of contemporary issues and emerging software engineering trends, models, tools, and techniques	Course – ANTH 452 Instructor- Neupert Assignment- Video **COMPLETED SP'14**	Course- cst407 Instructor- Nguyen Assignment- Paper **COMPLETED SP'14**	Exit Survey- **COMPLETED F '13**
	Institution			
	Critical Thinking	Course- cst407 Instructor-Nguyen Quarter- Spring Assignment-Crypto Project **COMPLETED SP'14**		
	Associate Degree			
		Direct#1	Direct#2	Indirect
4	a recognition of the need for, and an ability to engage in life-long learning		Course- cst105 Instructor- Nguyen Assignment- Paper **COMPLETED SP'14**	**Survey- COMPLETED F '13**
5	an ability to communicate through oral presentation and interaction with an audience	Course- cst238 Instructor-Bishop Quarter- Spring	Course- cst105 Instructor- Nguyen Quarter- Spring Assignment- Proposal Presentation **COMPLETED SP'14**	Survey- **COMPLETED F '13**
6	an ability to convey technical material through written reports which satisfy accepted standards for writing style		Course- cst105 Instructor- Nguyen Assignment- Paper **COMPLETED SP'14**	Survey- **COMPLETED F '13**

Table 4.1 Klamath Falls Campus Assessment Assignments for 2013-2014

	Bachelor Degree			
#	Learning Outcome	Direct#1	Direct#2	Indirect
6	a recognition of the need for, and an ability to engage in life-long learning	Course- cst415 Instructor- Tom Findley Assignment- Paper **COMPLETED SP'14**	Course- cst422 Instructor- Bockelman Assignment- Lifelong Learning Paper **COMPLETED W'14**	Klamath Falls Campus Exit Survey Sufficient
8	an ability to convey technical material through oral presentation and interaction with an audience	Course- cst412 Instructor-Bockelman Assignment-Project Presentation **COMPLETED F'13**	Course- cst352 Instructor- Bockelman Assignment- Research Presentation **COMPLETED F'13**	Klamath Falls Campus Exit Survey Sufficient
9	an ability to convey technical material through written reports which satisfy accepted standards for writing style	Course- cst432 Instructor- Bockelman Quarter- Spring Assignment- Project Report **COMPLETED SP '14**	Course- CST334 Instructor- Bockelman Quarter- Spring Assignment- Project Proposal **COMPLETED SP '14**	Klamath Falls Campus Exit Survey Sufficient

10	an ability to evaluate the impact of potential solutions to software engineering problems in a global society, using their knowledge of contemporary issues and emerging software engineering trends, models, tools, and techniques	Course – Anth 452 Instructor-Neupert Assignment- Video **COMPLETED SP '14**	Hist-452 Instructor-Madden Assignment- Paper **COMPLETED SP 14**	Klamath Falls Campus Exit Survey Sufficient
	Critical Thinking		Course- cst320 Instructor-Yang Quarter-Spring Assignment-Project	Klamath Falls Campus Exit Survey Sufficient
	Associate Degree	N/A For Wilsonville		

Table 4.2 OIT Wilsonville Campus Assessment Assignments for 2013-2014

ASSESSMENT RESULTS
TABLE 4.1 and 4.2

BS 6/AE 4 - a recognition of the need for, and an ability to engage in life-long learning

Assessment Activity #1 (BS 6)- Klamath

Course used for assessment: CST 415 – Computer Networks
Instructor/Evaluator: James Long (Klamath)
Student level: Senior
Term of administration: Fall 2013
Number of students: 8
Assessed work: Essay
Type of assessment: Direct

Assessment Method: Computer networks is a course on network theory and implementation through the TCP/IP protocol suite. Students were given a standard assignment for writing an essay on the field of software systems engineering and expectations related to the professional field. The OIT Lifelong Learning Rubric was used to evaluate the essays. Results are shown in Table below.

BS 6 assessment outcome results for CST 415

Performance Criteria	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
Lifelong learning	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	7 of 8 87%
Professional Development	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	6 of 8 75%
Short- and long- term career plans	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	5 of 8 62%

Data Collection Date: 11/18/2013   Coordinator: Jim Long

Evaluation of results: The placement of the assignment in CST 415 produces an artificial circumstance when combined with the Technical Writing assessment. Students are asked to write a technical report in a class which is based on lecture and lab/project based network protocol stack implementation. The end result of adding such a large assignment to an already heavily loaded class is students did not do a good job on either form of the assignment – e.g. either lifelong learning or technical writing.

Actions: Next time this assessment is run, the lifelong learning assignment should be done in CST 415 with a focus on how students can be prepared for the rapidly changing force of network communications. The technical writing PSLO needs to be done in CST 326. In this class, students are already producing a technical report as part of the standard workload.

Assessment Activity #2 (BS 6/AE 4)- Klamath

Course used for assessment: CST 105 – Introduction to Computer Systems III
Instructor/Evaluator: Phong Nguyen (Klamath)
Student level: Freshman
Term of administration: Spring 2014
Number of students: 23
Assessed work: Paper
Type of assessment: Direct

Data Collection Date: 4/1/14   Coordinator: Phong Nguyen

Assessment Method: A paper on lifelong was assigned. Each individual was required to fulfill the specifications of a rubric when writing this paper. The rubric was based on the notions of lifelong learning.

BS 6 assessment outcome results for CST 105

Performance Criteria	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
Lifelong learning	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	21 of 23 91.3%
Professional Development	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	15 of 23 65.21%
Short- and long- term career plans	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	10 of 23 43.47%

Data Collection Date: 4/8/2014   Coordinator: Phong Nguyen

Lifelong Learning 1-4	Professional Development 1-4	Short and Long Term Goals 1-4
3	3	3
3	2	2
3	2	3
3	2	2
3	3	3
3	3	2
3	3	2
3	2	2
3	4	2
3	3	3
4	3	3
3	3	3
2	3	2
3	2	2
3	2	2
3	3	3
2	1	1
4	3	2
3	2	2
3	4	3
4	3	4
3	3	2
4	3	3

Evaluation 4/18/14

Freshman level students are asked to write about lifelong learning to assess what they do not know at a low level class. As expected, the perceptions on this topic are all around immature. However, they will be given a chance in the next 2-3 years to mature.

Actions (4/18/1)

In 3 years when some of these students become seniors in the major, they will be given the same paper to assess their maturity and the classes that assisted them in learning lifelong learning.

Assessment Activity #3 (BS 6/AE 4)

Method used for assessment: Exit Survey
Instructor/Evaluator: Phong Nguyen
Student level: Senior Graduates
Term of administration: Graduating Class 2013
Number of students: 31/29
Assessed work: Survey
Type of assessment: Indirect

To assess this outcome for the institution, graduating students of 2013 were asked to complete an exit survey, the result which pertains to BS 6/AE 4 is shown below

PROFICIENCY SURVEY

#	Question	No/Limited Proficiency	Some Proficiency	Proficiency	High Proficiency	Total Responses	Mean
6	Lifelong learning	0.00%	12.90%	54.84%	32.26%	31	3.19

Percent of graduates grading themselves proficient or above: 87.10%

AGREE SURVEY

#	Description	Strongly Disagree	Disagree	Agree	Strongly Agree	Total Responses	Mean
6	A recognition of the need for, and an ability to engage in life-long learning.	0	2	14	13	29	3.38

Assessment Activity #_Wilsonville (BS 6)- Wilsonville

Course used for assessment: CST 415 – Computer Networks
Instructor/Evaluator: Tom Findley
Student level: Senior
Term of administration: Spring 2014
Number of students: 19
Assessed work: Paper
Type of assessment: Direct

Assessment Method:
To assess this outcome, students were asked to write a paper given the directions summarized below. These papers were then assessed using a predefined institutional rubric.

> For this assignment, please prepare a paper of approximately 1000 words (four full pages), using a double-spaced format. Your paper should address the four broad areas described below. The bulleted items are suggested topics to help you develop your ideas, but you may add your own ideas as well. Your paper should be written to form a satisfying whole on the subject of your future career and lifelong learning in your profession, rather than as a series of separate answers to the required areas. The attached rubric will be used to evaluate your paper.

Table 4-1: BS 6 - Life-long Learning Summary

	Limited or No Proficiency	Some Proficiency	Proficiency	High Proficiency	Proficiency %
Lifelong learning	0 of 19 0.00%	0 of 19 0.00%	15 of 19 78.95%	4 of 19 21.05%	**100%**
Professional societies	1 of 19 5.26%	4 of 19 21.05%	11 of 19 57.89%	3 of 19 15.79%	**73.68%**
Credentials	1 of 19 5.26%	6 of 19 31.58%	9 of 19 47.37%	3 of 19 15.79%	**63.16%**
Continuing education	1 of 19 5.26%	6 of 19 31.58%	11 of 19 57.89%	1 of 19 5.26%	**63.15%**
Short, long term career plans	2 of 19 10.53%	4 of 19 21.05%	10 of 19 52.63%	3 of 19 15.79%	**68.42%**
Average Student Total:				**14.16**	
Average Student Percentage:				**70.79%**	

Data Collection Date:_4-23-2014_____   Coordinator: Raymond Bockelman

Assessment Activity #2_Wilsonville (BS 6)- Wilsonville

Course used for assessment: CST 422 – Senior Development Project II
Instructor/Evaluator: Jay Bockelman
Student level: Senior
Term of administration: Winter 2014
Number of students: 9
Assessed work: Paper
Type of assessment: Direct

BS 6 assessment outcome results for CST 422

	Limited or No Proficiency	**Some Proficiency**	**Proficiency**	**High Proficiency**	**Proficiency %**
Lifelong learning	0 of 9 0.00%	0 of 9 0.00%	0 of 9 0.00%	9 of 9 100%	**100%**
Professional societies	0 of 9 0.00%	0 of 9 0.00%	3 of 9 33.33%	6 of 9 66.66%	**100%**
Credentials	0 of 9 0.00%	0 of 9 0.00%	4 of 9 44.44%	5 of 9 55.55%	**100%**
Continuing education	0 of 9 0.00%	0 of 9 0.00%	1 of 9 11.11%	8 of 9 88.88%	**100%**
Short, long term career plans	0 of 9 0.00%	0 of 9 0.00%	0 of 9 0.00%	9 of 9 100%	**100%**
Average Student Total:				**19**	
Average Student Percentage:				**95%**	

Data Collection Date:_3-23-2014_____   Coordinator: Raymond Bockelman

Evaluation of results: The students in this class are senior level and typically one term away from graduation, so the results of this assessment should indicate a high level of thoughtfulness on this topic. All students expressed a belief in lifelong learning, an awareness of the need for continuing education, and well-defined short and long term career goals. Most students saw the value of belonging to professional organizations and societies, and the value of credentials for job competitiveness.

Raw Student Data

Criteria	Dylan	Jacob	JohnA	JohnD	Tracey	Will	Colin	Christian	Average
Lifelong learning	4	4	4	4	4	4	4	4	4
Professional societies and organizations	4	3	4	4	4	4	3	3	3.37
Credentials	4	3	3	4	4	4	3	3	3.6
Continuing education	4	4	4	4	4	4	3	4	3.97

Short- and long-term career plans	4	4	4	4	4	4	4	4	4
Totals	20	18	19	20	20	20	17	18	

Actions: Bringing in professional guest speakers to discuss the value of belonging to professional societies and organizations, and the value for seeking additional credentials should help raise the student's awareness of such criteria.

BS 8/AE 5 - an ability to convey technical material through oral presentation and interaction with an audience

Assessment Activity #1(BS 8)- Klamath

Course used for assessment: CST 412 – Senior Development Project I
Instructor/Evaluator: Calvin Caldwell
Student level: Senior
Term of administration: Fall 2013
Number of students: 21
Assessed work: Senior Project Presentation
Type of assessment: Direct

Assessment Method: 21 students presented their Senior Projects to their classmates. These presentations were the assessed using a predefined institutional rubric. The results of the assessment are shown in Table 4.2.

BS 9 – Oral presentation summary CST 412

	Limited or No Proficiency	**Some Proficiency**	**Proficiency**	**High Proficiency**	**Proficiency %**
Content	0 of 21 0.00%	2 of 21 9.52%	8 of 21 38.10%	11 of 21 42.86%	**90.48%**
Organization	0 of 21 0.00%	2 of 21 9.52%	8 of 21 38.10%	11 of 21 42.86%	**90.48%**
Style	0 of 21 0.00%	1 of 21 4.76%	6 of 21 28.57%	14 of 21 66.67%	**95.24%**
Delivery	0 of 21 0.00%	1 of 21 4.76%	9 of 21 42.86%	11 of 21 52.38%	**95.24%**
Visuals	1 of 21 4.76%	1 of 21 4.76%	4 of 21 19.05%	15 of 21 71.43%	**90.48%**
			Average Student Total:	**17.52**	
			Average Student Percentage:	**87.60%**	

Individual Evaluation results:
Evaluation 12/5/13_____ (date)

2 students were basically unprepared. Overall, the presentations went well. If there was one common negative, it was that several presentations were a bit on the short side.

Actions 12/5/13_____ (date)

Next time, emphasis will be placed on presenting throughout the fully allotted time.

Assessment Activity #2 (BS 8/AE 5)- Klamath

Spring 2014

Course used for assessment: CST 238 – Graphical User Interfaces
Instructor/Evaluator: David Bishop
Student level: Sophomore
Term of administration: Spring 2014
Number of students: 22
Assessed work: Oral Presentation
Type of assessment: Direct

Assessment Method: One of the assignments for this course was to present an oral presentation regarding some aspect of GUI programming, GUI design, or C# programming. The results of the assessment are shown in the following table.

Counts

Key:	Content	Organization	Style	Delivery	Visuals
Limited or No Proficiency	0	1	0	0	0
Some Proficiency	0	3	8	3	3
Proficient	0	10	12	5	3
Highly Proficient	22	8	2	14	16
TOTAL	22	22	22	22	22

Percentages

Key:	Content	Organization	Style	Delivery	Visuals
Limited or No Proficiency	0.0%	4.5%	0.0%	0.0%	0.0%
Some Proficiency	0.0%	13.6%	36.4%	13.6%	13.6%
Proficient	13.6%	45.5%	54.5%	22.7%	13.6%
Highly Proficient	86.4%	36.4%	9.1%	63.6%	72.7%
Proficiency Percent	93.6%	86.4%	82.3%	90.0%	90.9%
Average Student Percentage	84.1%				

Conclusions: There is a clear increase in student performance between the 2011 and 2014 assessments in the areas of content, and visuals. This may be due to the recent change of venue for the course, as the platform for development switched from the C language and the Windows API to C#, the Windows Presentation Foundation (WPF), and the .NET platform. The choices for content under the new platform is much richer than the old, and therefore made it easier for

students to choose topics close to their interests. In addition, the new platform (particularly WPF) offers a wide variety of visual customizations which greatly enhanced many student presentations

Assessment Activity #3 (BS 8/AE 5)- Klamath

Course used for assessment: CST 105 – Intro to Computer Systems III
Instructor/Evaluator: Phong Nguyen
Student level: Freshman
Term of administration: Spring 2014
Number of students: 30
Assessed work: Mock JP Oral Presentation
Type of assessment: Direct

Assessment Method: one Junior Project group presented its Design Review to a class of freshman in CST 105. The freshmen were formed into groups of 4, asked to propose a make-believe project when they become juniors. The groups are asked to complete a powerpoint presentation and do a mock presentation of their proposals.

BS 9 – Oral presentation summary CST 105

	Limited or No Proficiency	*Some Proficiency*	*Proficiency*	*High Proficiency*	*Proficiency %*
Content	*0 of 30* *0.00%*	*8 of 30* *26.67%*	*22 of 30* *73.33%*	*0 of 30* *0%*	*73.33%*
Organization	*0 of 30* *0.00%*	*9 of 30* *30.0%*	*21 of 30* *70.0%*	*0 of 30* *0%*	*70.0%*
Style	*0 of 30* *0.00%*	*13 of 30* *43.33%*	*15 of 30* *50.0%*	*2 of 30* *6.7%*	*56.67%*
Delivery	*0 of 30* *0.00%*	*18 of 30* *60.0%*	*9 of 30* *30.0%*	*3 of 30* *10.0%*	*40.0%*
Visuals	*0 of 30* *4.76%*	*5 of 30* *16.67%*	*24 of 30* *80.0%*	*1 of 30* *3.33%*	*83.33%*
		Average Student Percentage:		*64.65%*	

Content	Organization	Style	Delivery	Visuals
3	3	2	3	3
3	3	2	2	3
2	2	3	2	3
2	3	2	2	3
3	3	3	2	3
3	2	2	3	2

3	3	2	2	2
3	2	3	2	3
3	3	3	3	2
2	3	3	2	2
2	3	3	3	3
3	3	2	2	3
3	3	3	2	3
3	3	4	3	3
3	3	3	4	3
2	2	3	2	3
3	3	3	2	3
3	3	2	2	3
3	3	3	2	3
2	3	2	3	3
3	3	4	4	3
2	2	3	3	3
3	2	2	2	2
3	3	2	2	3
3	3	2	2	3
2	2	2	3	3
3	3	3	3	3
3	3	3	4	4
3	2	3	2	3
3	2	2	2	3

Evaluation 4/28/14
Students are freshman doing a mock JP presentation. Students were asked to watch a genuine JP presentation before preparing and presented themselves. In the end, they did not do as well as the juniors they watched. This is to be expected since they have not been taught oral presentation skills.

Actions (4/28)
The same freshman will be assessed in 2-3 years to see the improvements.

Assessment Activity #4 (BS 8/AE 5)

Method used for assessment:	Exit Survey
Instructor/Evaluator:	Phong Nguyen
Student level:	Senior Graduates
Term of administration:	2013 Graduating Class
Number of students:	31/29
Assessed work:	Survey
Type of assessment:	Indirect

To assess this outcome for the institution, graduating students of 2013 were asked to complete an exit survey, the result which pertains to BS#8 is shown below

PROFICIENCY SURVEY

#	Question	No/Limited Proficiency	Some Proficiency	Proficiency	High Proficiency	Total Responses	Mean
8	Oral Presentation	0.00%	25.81%	41.94%	32.26%	31	3.06

Percent of graduates grading themselves proficient or above: 74.19%

AGREE SURVEY

#	Description	Strongly Disagree	Disagree	Agree	Strongly Agree	Total Responses	Mean
8	An ability to convey technical material through oral presentation and interaction with an audience	0	3	19	7	29	3.14

Assessment Activity #1(BS 8)

Course used for assessment:	CST 412 – Senior Development Project I
Instructor/Evaluator:	Jay Bockelman
Student level:	Senior
Term of administration:	Fall 2013
Number of students:	9
Assessed work:	Classroom Oral Presentation
Type of assessment:	Direct

Assessment Method: Students (9 total) in CST 412 (Senior Project) were required to deliver a proof of concept review presentation and demonstration in front of the Senior Project class. Students were assessed in each of the following performance criteria as defined in the attached rubrics. These presentations were then assessed using a predefined institutional rubric. The results of the assessment are shown in Table 4.2.

Table 4-2: BS 8 – Oral presentation summary

	Limited or No Proficiency	Some Proficiency	Proficiency	High Proficiency	Proficiency %
Preparation	0 of 9 0.00%	1 of 9 11.00%	2 of 9 22.00%	6 of 9 67.00%	**89%**
Knowledge	0 of 9 0.00%	0 of 9 0.00%	1 of 9 11.00%	8 of 9 89.00%	**100%**
Organization	0 of 9 0.00%	1 of 9 11.00%	2 of 9 22.00%	6 of 9 67.00%	**89%**
Delivery	0 of 9 0.00%	1 of 9 11.00%	2 of 9 22.00%	6 of 9 67.00%	**89%**
Proof-of-Concept	0 of 9 0.00%	1 of 9 11.00%	2 of 9 22.00%	6 of 9 67.00%	**89%**
Q/A	0 of 9 0.00%	0 of 9 0.00%	9 of 9 40.00%	9 of 9 100.00%	**100%**
Time	0 of 9 0.00%	0 of 9 0.00%	9 of 9 40.00%	9 of 9 40.00%	**100%**
Average Student Percentage:				**89.30%**	

CST412 Senior Project
Final Presentation and Demonstration
Fall 2013

Student	Instructor Scoring									Student Scoring									Diff							
	Preparation	Knowledge	Organization	Delivery	Proof of Concept	Q/A	Time	Total	%	Preparation	Knowledge	Organization	Delivery	Proof of Concept	Q/A	Time	Total	%	Preparation	Knowledge	Organization	Delivery	Proof of Concept	Q/A	Time	Total
	10.0	10.0	10.0	9.5	10.0	9.5	9.5	68.5	98%	9.5	9.4	9.0	8.5	8.6	8.6	9.8	63.4	91%	0.5	0.6	1.0	1.0	1.4	0.9	-0.3	5.1
	8.5	9.0	9.5	8.5	10.0	10.0	9.5	65.0	93%	7.9	8.3	8.3	8.0	8.9	8.9	8.9	59.0	84%	0.6	0.8	1.3	0.5	1.1	1.1	0.6	6.0
	10.0	10.0	10.0	9.5	10.0	10.0	8.5	68.0	97%	8.8	9.4	8.4	8.5	9.6	8.9	9.3	62.8	90%	1.3	0.6	1.6	1.0	0.4	1.1	-0.8	5.3
	8.5	10.0	8.0	9.0	10.0	10.0	10.0	65.5	94%	7.6	8.9	8.5	8.0	8.5	8.9	9.4	59.8	85%	0.9	1.1	-0.5	1.0	1.5	1.1	0.6	5.8
	8.0	8.5	8.5	8.0	9.0	9.0	9.5	60.5	86%	8.4	8.7	8.0	8.7	8.6	9.1	9.3	60.9	87%	-0.4	-0.2	0.5	-0.7	0.4	-0.1	0.2	-0.4
	6.0	8.5	6.0	8.5	7.5	10.0	10.0	56.5	81%	7.6	9.0	7.4	7.9	9.1	8.9	9.3	59.1	84%	-1.6	-0.5	-1.4	0.6	-1.6	1.1	0.8	-2.6
	7.5	8.0	7.0	7.5	1.5	7.5	8.5	47.5	68%	7.9	8.0	8.6	6.9	4.9	7.3	9.1	52.6	75%	-0.4	0.0	-1.6	0.6	-3.4	0.2	-0.6	-5.1
	10.0	10.0	10.0	8.5	10.0	9.0	10.0	67.5	96%	8.9	9.3	8.9	7.1	9.7	8.6	9.6	62.0	89%	1.1	0.7	1.1	1.4	0.3	0.4	0.4	5.5
	10.0	10.0	9.5	8.0	10.0	8.0	8.5	64.0	91%	8.6	9.1	8.4	7.9	9.3	6.6	9.3	59.1	84%	1.4	0.9	1.1	0.1	0.8	1.4	-0.8	4.9

Evaluation of results:
Each student was evaluated on a scale of 1-10 on each of the areas. The scoring was completed by 2 instructors and the other students in the class. The difference between the instructor scores and the student scores is listed in the "Diff" category in the table.
1 student was not as prepared as required, while 2 other students were adequately prepared, but not as prepared as expected. The remaining 6 students were well prepared for this presentation.

As one can see, the other students in the class were more critical of their fellow students than the instructors.

Assessment Activity #2_Wilsonville (BS 8) - Wilsonville

Course used for assessment: CST 352 – Operating Systems
Instructor/Evaluator: Jay Bockelman
Student level: Junior
Term of administration: Fall 2013
Number of students: 9
Assessed work: Classroom Oral Presentation
Type of assessment: Direct

One of the assignments for the students in this course was to conduct academic research on a selected topic related to Operating Systems, and present their findings in an oral presentation to the class. The results of the assessment are shown in Table 4.3.

Table 4-3: BS 8 – Oral presentation summary

	Limited or No Proficiency	Some Proficiency	Proficiency	High Proficiency	Proficiency %
Preparation	0 of 9 0.00%	0 of 9 0.00%	2 of 9 22.00%	7 of 9 67.00%	**100%**
Knowledge	0 of 9 0.00%	0 of 9 0.00%	5 of 9 11.00%	4 of 9 89.00%	**100%**
Organization	0 of 9 0.00%	1 of 9 11.00%	4 of 9 22.00%	5 of 9 67.00%	**89%**
Delivery	0 of 9 0.00%	2 of 9 11.00%	4 of 9 22.00%	3 of 9 67.00%	**78%**
Graphics	0 of 9 0.00%	1 of 9 11.00%	7 of 9 22.00%	2 of 9 67.00%	**89%**
Research	0 of 9 0.00%	1of 9 0.00%	4 of 9 40.00%	4 of 9 100.00%	**89%**
Time	0 of 9 0.00%	2 of 9 0.00%	1 of 9 40.00%	6 of 9 40.00%	**78%**
Average Student Percentage:				**85.33%**	

CST352 – Operating Systems
Fall 2013
Student Research Project Oral Report
Instructor and Student Scores (see rubric for criteria)

Student	Instructor Scoring									Average of Class Scoring								
	Preparation	Knowledge	Organization	Delivery	Graphics	Research	Time	Total	%	Preparation	Knowledge	Organization	Delivery	Graphics	Research	Time	Total	%
	4	3	3	3	3	3	4	23.0	82%	3.6	3.5	3.3	3.2	2.8	3.5	4.0	23.9	85%
	4	3	4	4	3	2	4	24.0	86%	3.6	3.7	3.7	3.3	3.2	3.3	3.5	24.3	87%
	3	4	4	3	3	4	2	23.0	82%	2.8	3.9	3.3	3.0	3.6	4.0	2.7	23.3	83%
	4	3	3	2	3	3	4	22.0	79%	3.5	3.4	3.2	3.2	3.6	3.4	3.7	24.1	86%
	4	3	3	2	3	3	4	22.0	79%	3.4	3.5	3.5	3.1	3.3	3.5	3.8	24.1	86%
	4	4	4	4	4	4	4	28.0	100%	3.8	3.7	3.9	3.7	4.0	3.9	3.9	26.8	96%
	4	4	4	3	3	4	3	25.0	89%	3.9	3.8	3.9	3.3	3.8	3.8	3.6	25.9	92%
	3	3	3	3	3	3	2	20.0	71%	3.5	3.9	3.4	3.1	3.1	3.7	3.3	24.1	86%
	4	4	4	4	4	4	4	28.0	100%	3.7	3.9	3.8	3.9	4.0	3.6	3.4	26.2	94%

BS 9/AE 6 - an ability to convey technical material through written reports which satisfy accepted standards for writing style

Assessment Activity #1 (BS 9)- Klamath

Course used for assessment: CST 415 – Computer Networks
Instructor/Evaluator: James Long
Student level: Senior
Term of administration: Fall 2013
Number of students: 8
Assessed work: Essay
Type of assessment: Direct

Assessment Method: Computer networks is a course on network theory and implementation through the TCP/IP protocol suite. Students were given a standard assignment for writing an essay on the field of software systems engineering and expectations related to the professional field. The OIT Technical Report Writing Rubric was used to evaluate the essays. Results are shown in the Table below.

BS 9 ssessment outcome results for CST 415

Performance Criteria	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
Topic	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	6 of 8 75%
Audience	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	7 of 8 87%
Development	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	6 of 8 75%
Organization	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	7 of 8 87%
Writing Style	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	6 of 8 75%
Research	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	0 of 8 0%
Documentation	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	0 of 8 0%

Graphics	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	0 of 8 0%
Format	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	5 of 8 62%
Conventions	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	7 of 8 87%

Data Collection Date: 11/18/2013_____   Coordinator: Jim Long_____

Evaluation of results: The placement of the assignment in CST 415 produces an artificial circumstance when combined with the Technical Writing assessment. Students are asked to write a technical report in a class which is based on lecture and lab/project based network protocol stack implementation. The end result of adding such a large assignment to an already heavily loaded class is students did not do a good job on either form of the assignment – lifelong learning or technical writing. Even though this was the case for the assessment, there is good evidence that students have a good grasp of technical writing without the formalized documentation, graphics, and formatting conventions.

Actions: Next time this assessment is run, the lifelong learning assignment should be done in CST 415 with a focus on how students can be prepared for the rapidly changing force of network communications. The technical writing PSLO needs to be done in CST 326. In this class, students are already producing a technical report as part of the standard workload.

Assessment Activity #2 (BS 9/AE 6)- Klamath

Course used for assessment: CST 105 – Intro to Computer Systems III
Instructor/Evaluator: Phong Nguyen
Student level: Freshman
Term of administration: Spring 2014
Number of students: 22
Assessed work: Paper on Lifelong Learning but Assessed for Technical Writing
Type of assessment: Direct

Data Collection Date: __4/1/14__   Coordinator: __Phong Nguyen__

Assessment Method: A paper on lifelong was assigned. Each individual was required to fulfill the specifications of technical writing from a rubric when writing this paper.

Performance Criteria	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
Development	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	20 of 22 90.9%
Organization	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	17 of 22 77.27%
Writing Style	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	19 of 22 86.36%
Format	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	17 of 8 77.27%
Conventions	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	13 of 22 59.1%

Development 1-4	Organization 1-4	Writing Style 1-4	Format 1-4	Convention 1-4
3	3	3	2	3
2	3	2	3	2
3	2	3	2	3
3	3	3	3	2
3	3	3	3	3

3	4	3	3	3
3	3	3	3	3
3	3	3	3	2
4	4	4	3	4
3	3	3	3	2
2	2	3	2	1
3	2	2	2	2
3	3	4	3	3
4	4	3	3	3
3	3	3	3	3
4	3	3	3	3
4	3	4	4	3
4	3	4	3	3
4	3	3	3	2
4	3	4	3	3
3	2	3	2	2
3	2	2	3	2

Evaluation 4/18/14

As expected, the technical writing skills at the freshman leave much to be desired. There exists the rare one or two who possess the knowledge required to be a proficient technical writer. These students will have many chances to write technical reports as well as take a class in technical writing

Actions (4/18/1)

In 3 years when some of these students become seniors in the major, they will be given the same paper to assess their maturity and the classes that assisted them in learning the skills of technical writing.

Assessment Activity #3 (BS 9/AE 6)

Method used for assessment:	Exit Survey
Instructor/Evaluator:	Phong Nguyen
Student level:	Senior Graduates
Term of administration:	2013 Graduates
Number of students:	31/29
Assessed work:	Survey
Type of assessment:	Indirect

PROFICIENCY SURVEY

# Question	No/Limited Proficiency	Some Proficiency	Proficiency	High Proficiency	Total Responses	Mean
9 Written Comm	0.00%	12.90%	51.61%	35.48%	31	3.23

AGREE SURVEY

#	Description	Strongly Disagree	Disagree	Agree	Strongly Agree	Total Responses	Mean
9	An ability to convey technical material through written reports which satisfy accepted writing styles	0	1	19	9	29	3.28

Assessment Activity #1 (BS 9)-Wilsonville

Course used for assessment: CST 432 – Senior Project Development III
Instructor/Evaluator: Jay Bockelman
Student level: Senior
Term of administration: Spring 2014
Number of students: 7
Assessed work: Project Report
Type of assessment: Direct

To assess this outcome for the institution, and as a required assignment for the Senior Project Development course, the students had to write a technical paper that was a report on their project. The assignment is listed below.

> For this assignment, please prepare a paper of approximately 1000 words (four full pages), using a double-spaced format. Your paper should address the four broad areas described below. The bulleted items are suggested topics to help you develop your ideas, but you may add your own ideas as well. Your paper should be written to form a satisfying whole on the subject of your future career and lifelong learning in your profession, rather than as a series of separate answers to the required areas. In addition to content (topics below), your paper will also be assessed on purpose, organization, support, style, conventions, and use/citation of outside sources. The attached rubrics (2) will be used to evaluate your paper. Please submit two copies of your paper.

This paper was then used to assess written communications. The results of the assessment are shown in the following table

BS 9 – Written Communications Summary

	**Limited or No Proficiency**	_**Some Proficiency**_	_**Proficiency**_	_**High Proficiency**_	_**Proficiency %**_
**Introduction**	*0 of 9* *0.00%*	*0 of 9* *0.00%*	*2 of 9* *0.00%*	*5 of 9* *0.00%*	*100%*
**Research**	*0 of 9* *0.00%*	*2of 9* *0.00%*	*2 of 9* *0.00%*	*3 of 9* *0.00%*	*71%*
**Problem**	*0 of 9* *0.00%*	*0 of 9* *0.00%*	*2 of 9* *0.00%*	*5 of 9* *0.00%*	*100%*
**Procedure**	*0 of 9* *0.00%*	*1 of 9* *0.00%*	*2 of 9* *0.00%*	*4 of 9* *0.00%*	*86%*
**Data/Results**	*0 of 9* *0.00%*	*1 of 9* *0.00%*	*3 of 9* *0.00%*	*3 of 9* *0.00%*	*86 %*
**Conclusion**	*0 of 9* *0.00%*	*3 of 9* *0.00%*	*2 of 9* *0.00%*	*2 of 9* *0.00%*	*57%*
			**Average Student Total:**	_**31/36**_	
			**Average Student Percentage:**	_**86%**_	

CST 432 Spring 2014
Project Report

BS-9 : An ability to convey technical material through written reports which satisfy accepted standards for writing

Raw Student Data

Name	Introduction	Research	Purpose /Problem	Procedure	Data & Results	Conclusion	Grammar & Spelling	Appearance	Timelines	Score	Notes
	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	36	
	4	3	4	4	3	3	4	4	4	33	Summer and Test results weak
	4	2	4	3	3	2	4	3	3	28	Weak testing and conclusion
	4	4	4	4	4	2	4	2	4	32	Good report, but weak conclusion
	4	4	4	4	4	4	4	4	4	36	Thorough and excellent report
	3	2	3	2	2	2	4	2	3	23	Weak report without sufficient detailed information
	3	3	3	3	3	3	4	3	4	29	Acceptable but brief without adequate descriptions of each section
	4	4	4	4	4	4	4	4	4	36	Thorough and excellent report
Average Score	3.7	3.14	3.71	3.44	3.28	2.85	**4.0**	3.14	3.71	31/36	

Evaluation of results: The students in this class are senior level and typically one term away
from graduation, so the results of this assessment should indicate a high level of thoughtfulness
on this topic. All students expressed a belief in lifelong learning, an awareness of the need for
continuing education, and well-defined short and long term career goals. Most students saw the
value of belonging to professional organizations and societies, but the value of credentials for job
competitiveness in the Software Engineering field is not recognized. Also, many students in the
Wilsonville program are working professionals, so it is no surprise that they see the value of
LifeLong learning.

Actions: Bringing in professional guest speakers to discuss the value of belonging to professional societies and organizations, and the value for seeking additional credentials should help raise the student's awareness of such criteria.

Assessment Activity #2 (BS 9)

Course used for assessment: CST 334 – Project Proposal
Instructor/Evaluator: Jay Bockelman
Student level: Junior
Term of administration: Spring 2014
Number of students: 24 (assessed 21)
Assessed work: Project Proposal Report
Type of assessment: Direct

To assess this outcome for the institution, and as a required assignment for the Senior Project Proposal course, the students had to prepare and present a technical report on their project. The assignment is listed below.

> For this assignment, think of this presentation as "pitching" your project idea to a room of investors. Give enough detail they have a good idea of your project – the scope, the customers, the success criteria and the risks, but don't get mired down in the development details. Keep this presentation at a high level where you are defining your project ideas, but not how you are planning on implementing them..

This paper was then used to assess written communications. The results of the assessment are shown in the following tables
  The results are listed below.

Table 4-5: BS 9 – Written Communications Summary

	Limited or No Proficiency	Some Proficiency	Proficiency	High Proficiency	Proficiency %
Preparation / Organization	0 of 21 100%	0 of 21 100%	3 of 21 100%	18 of 21 100%	**100%**
Overview / Scope	0 of 21 100%	0 of 21 100%	2 of 21 100%	19 of 21 100%	**100%**
Success Criteria	0 of 21 100%	0 of 21 100%	6 of 21 100%	15 of 21 100%	**100%**
Risks	0 of 21 100%	0 of 21 100%	8 of 21 100%	13 of 21 100%	**100%**
Q / A	0 of 21 100%	0 of 21 100%	2 of 21 100%	19 of 21 100%	**100%**
Time	0 of 21 100%	0 of 21 100%	6 of 21 100%	15 of 21 100%	**100%**
			Average Student Total:	**53.6 / 60**	

	Average Student Percentage:	89.3%	

\

Raw Student Scores

Student	Project Plan Presentation — Michael's Scores						Jay's Scores						Combined M&J						Points	%
	Prep & Org	Overview/Scope	Success Criteria	Risks &	Q & A	Time	Prep & Org	Overview/Scope	Success Criteria	Risks &	Q & A	Time	Prep & Org	Overview/Scope	Success Criteria	Risks & Summary	Q & A	Time	Points	%
													####	## ##	####	####	####	####	#DIV/0!	#DIV/0!
	10	10	10	9	10	10	10	10	10	10	10	10	10.0	10.0	10.0	9.5	10.0	10.0	59.5	99.2%
	9	10	9	10	9	8	9	9	9	9	8	8	9	9.5	9	9.5	8.5	8	53.5	89.2%
	10	9	9	10	9	8	10	10	10	10	10	8	10	9.5	9.5	10	9.5	8	56.5	94.2%
	10	9	9	8	8	7	9	9	8	8	10	9	9.5	9	8.5	8	9	8	52	86.7%
	10	8	9	9	10	10	10	9	9	9	10	10	10	8.5	9	9	10	10	56.5	94.2%
	10	10	10	9	8	7	10	10					10.0	10.0	10.0	9.0	8.0	7.0	54	90.0%
	10	9	8	8	9	10	9	8	8	8	9	10	9.5	8.5	8.0	8.0	9.0	10.0	53	88.3%
	10	10	9	9	10	10	8	8	8	8	8	8	9	9	8.5	8.5	9	9	53	88.3%

	10	9	10	10	8	8	10	10	9	9	10	10	10.0	9.5	9.5	9.5	9.0	9.0	56.5	94.2%
	8	7	6	6	7	8	7	6	7	6	6	8	7.5	6.5	6.5	6	6.5	8	41	68.3%
	10	10	9	10	9	7	8	9	8	9	9	9	9	9.5	8.5	9.5	9	8	53.5	89.2%
	8	10	6	8	10	9	8	8	9	8	10	10	8.0	9.0	7.5	8.0	10.0	9.5	52	86.7%
	8	10	6	8	10	9	8	8	9	8	10	10	8.0	9.0	7.5	8.0	10.0	9.5	52	86.7%
													####	#####	####	####	####	####	#DIV/0!	#DIV/0!
	10	9	9	10	9	8	8	8	8	10	10	10	9	8.5	8.5	10	9.5	9	54.5	90.8%
													####	#####	####	####	####	####	#DIV/0!	#DIV/0!
	10	9	8	9	9	9	8	8	8	8	9	10	9	8.5	8	8.5	9	9.5	52.5	87.5%
	10	9	9	10	10	9	9	9	8	8	10	10	9.5	9.0	8.5	9.0	10.0	9.5	55.5	92.5%
	10	10	10	8	10	10	10	10	9	10	10	10	10.0	10.0	9.5	9.0	10.0	10.0	58.5	97.5%
	9	8	8	6	8	8	8	8	9	9	10	10	8.5	8.0	8.5	7.5	9.0	9.0	50.5	84.2%
	10	9	8	8	8	10	8	8	8	8	10	10	9.0	8.5	8.0	8.0	9.0	10.0	52.5	87.5%
	10	9	10	6	10	9	9	9	8	8	8	9	9.5	9.0	9.0	7.0	9.0	9.0	52.5	87.5%
	10	9	9	9	10	10	9	9	9	8	10	10	9.5	9.0	9.0	8.5	10.0	10.0	56	93.3%

Evaluation of results: The students in this class are junior level and typically one year away from graduation, so the results of this assessment should indicate a relatively high level of proficiency on this topic. The students have typically completed 4 writing courses and had numerous writing assignments in other courses. In general the results were satisfactory, but with a couple students either missing the assignment for doing poorly. With a 1-credit course, it is difficult to coach students to perform at a higher level than they are previously prepared to do. Also, with 2 instructors (the 2 classes were combined for this assignment) one gets a better average of student performance.

Actions for improvement: Use a different course for assessment.

BS 10 - an ability to evaluate the impact of potential solutions to software engineering problems in a global society, using their knowledge of contemporary issues and emerging software engineering trends, models, tools, and techniques

Assessment Activity #1 (BS#10) – Klamath and Wilsonville

Course used for assessment: ANTH 452 – Globalization
Instructor/Evaluator: Mark Neupert
Student level: Senior
Term of administration: Spring 2014
Number of students: 11
Assessed work: Video and oral answer
Type of assessment: Direct

11 BSOF students were enrolled in Anthropology 452 during the Spring quarter of 2014. Their progress was assessed using a variety of assignments including classroom discussion, written assignments and video submissions, wherein the student was required to video capture an oral answer to the assignment. The video approach is particularly useful in assessing an individual student's ability to control the material.

Three areas of learning were assessed.

1) The student's ability to identify and apply appropriate definitions of globalization to examples of global phenomena, demonstrating an ability to describe phenomena. Definitions include liberalization, internationalization, westernization, homogenization, and supraterritoriality. The students were required to identify which definition fit best to reports on current affairs. Example, a free-trade deal between the US and Korea would be best defined and described as liberalization.

2) The student's ability to apply theory to explain global phenomenon. Theories included neoliberalism, political realism, feminism, post-modernism, Marxism and so on. Students were required to explain global phenomenon from a variety of frameworks. Example, students were required to analyze a film called "Globalization is Good" – identify the framework used by the filmmaker (neoliberalism) and then asked to reframe, using competing theories, the issues identified in the film (such as explaining and discussing the all-female workforce in a Vietnamese sweatshop in terms of Feminist Theory.)

3) Student's ability to demonstrate control over a variety of current global issues. These issues included the impact of globalization on sovereignty, outsourcing, health, warfare, and food production among others.

The results of the assessment activity are shown in Table below

	Limited or No Proficiency	*Some Proficiency*	*Proficiency*	*High Proficiency*	*Proficiency %*
Identification and application of definitions and types of globalization	*0 of 11* *0%*	*2 of 11* *18%*	*6 of 11* *54%*	*3 of11* *27%*	*81%*
Identification and application of explanatory frameworks to globalization	*1 of11* *9%*	*3 of11* *27%*	*5 of11* *45%*	*2 of11* *18%*	*63%*
Understanding of the impact of globalization on social, economic, and political activities	*0 of 11* *0%*	*2 of 5* *0%*	*6 of11* *54%*	*3 of 11* *27%*	*81%*

Evaluation 5/11/14

Overall scores was worse than previous cycle assessment. "Identification and application of explanatory frameworks to globalization" has a low 63% proficiency. Too low! This class was dragged down by a couple of underperforming and disengaged students. Easily the worst group of CSET students I've had in there, ever.   A couple were standout students, but there wasn't the usual number of those. Usually, the CSET students are outstanding!

Actions (5/18/1)

Since the lower score was attributed to two of 11 students, the assessment method is deemed adequate. Will try the same method again next cycle!

Assessment Activity #2 (BS#10) - Klamath

Method used for assessment: CST 407 Cryptography
Instructor/Evaluator: Phong Nguyen
Student level: Senior
Term of administration: Spring 14
Number of students: 23
Assessed work: Paper
Type of assessment: Direct

Assessment Method: Two movies on the global effects of cybersecurity were shown. Subsequently, the students were asked to write a paper on globalization and its effects on cybersecurity.

Performance Criteria	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
Focus	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	23 of 23 100%
Define	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	17 of 23 73.9%
Impact	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	16 of 23 70%
Close	Written Assignment	No Proficiency (1)/ Some Proficiency (2)/ Proficiency (3)/ High Proficiency (4)	Proficiency (3)	17 of 22 73.9%

Focus 1-4	define 1-4	impact 1-4	close 1-4
3	3	3	3
4	4	3	3
3	2	2	2
3	3	2	4
3	3	3	3
4	3	4	3
4	4	4	3
3	3	4	2
3	3	2	3
3	2	2	3

4	3	2	3
4	3	3	2
3	2	2	2
3	3	3	3
4	3	4	3
3	3	3	3
4	4	4	3
4	4	4	1
3	3	3	2
4	4	3	3
3	3	3	2
4	4	3	3
3	3	2	2

Evaluation 4/18/14

The fact that the students assessed were seniors is significant here. Given that for most, this is their last quarter before graduation, they are expected to express insightful thought processes in their paper on a very important subject. The students scored above a 70% of 3 or 4 scores. Students showed independent views and supported them well with sources and self evaluations.

Actions (4/18/1)

No actions required.

Assessment Activity #3

Method used for assessment:	Exit Survey
Instructor/Evaluator:	Phong Nguyen
Student level:	Senior Graduates
Term of administration:	2013 Graduating Class
Number of students:	31/29
Assessed work:	Survey
Type of assessment:	Indirect

AGREE SURVEY

#	Description	Strongly Disagree	Disagree	Agree	Strongly Agree	Total Responses	Mean
10	An ability to evaluate the impact of potential solutions to software engineering problems in a global society, using their knowledge of contemporary issues and emerging software engineering trends, models, tools, and techniques	0	6	15	8	29	3.07

Assessment Activity #2 - Wilsonville (#1 is teamed with Kfalls from Prof. Neupert, shown earlier)

Course used for assessment:	HIST 452 – Globalization and the Pacific Northwest
Instructor/Evaluator:	Ryan Madden
Student level:	Senior
Term of administration:	Spring 2014
Number of students:	8 (3 Software students)
Assessed work:	Globalization Paper
Type of assessment:	Direct

To assess this outcome for the institution, and as a required assignment for the HIST452 Globalization course, the students had to a paper on their profession and globalization. The assignment is listed below.

Write a five to seven page analysis (1250-1750 words) of how your profession has been impacted by or responded to globalization. You can use a company you currently work for or a profession in which you hope to be employed. Please use elements from the Scholte text to inform your analysis. Your grade will be based both on content and style, so be sure to check the spelling, grammar, and formatting of your work before you turn it in. Make sure to use proper citations and to avoid plagiarism - this includes not just exact copying of a written text, but also the unattributed copying of ideas, or making only minor changes to another text and passing it off as your own. Please read the attachment on writing a history paper and citing before composing your essay.

	Limited or No Proficiency	Some Proficiency	Proficiency	High Proficiency	Proficiency %
Identification and application of definitions and types of globalization	0 of 3 0%	0 of 3 0%	1 of 3 33%	2 of 3 66.00%	**100.00%**
Identification and application of explanatory frameworks to globalization	0 of 3 0%	0 of 3 0%	1 of 3 33%	2 of 3 66.00%	**100.00%**
Understanding of the impact of globalization on social, economic, and political activities	0 of 3 0%	0 of 3 0%	0 of 3 0%	3 of 3 100.00%	**100.00%**

Evaluation of results: performance.

Actions for improvement: None

INSTITUTIONAL STUDENT LEARNING OBJECTIVE
ASSESSMENT FOR 2013-2014

Course used for assessment: CST 407 – Cryptography
Instructor/Evaluator: Phong Nguyen
Student level: Senior
Term of administration: Spring 2014
Number of students: 20
Assessed work: Quiz
Type of assessment: Direct

Assessment Method: Cryptography is a course which familiarizes the students with private and public key cryptographic systems. In this quiz, the students are required to recognize and apply methods of encryption/decryption to provide a digital signature in order to prevent a "man in the middle" attack using the RSA system.

Critical Thinking assessment results for CST 407 for Software Program Students

ID	Identification: 1-4	Clarification: 1-4	Evaluation: 1-4
2025	3	4	4
7306	4	3	4
1630	3	3	2
6817	4	2	2
7058	2	2	2
3314	2	3	4
5489	4	4	4
7262	4	3	4
6304	4	3	2
7610	2	4	4
2008	4	3	4
734	3	3	4
2363	4	3	3
2486	4	3	4
2763	1	3	2
4894	4	4	4
7394	4	3	4
1636	4	4	3
6378	3	3	4
1363	4	3	3
Average	3.35	3.15	3.3

Data Collection Date: 4/4/2014_____ Coordinator: Phong Nguyen_____

Evaluation of results: The concept of a digital signature using RSA is complicated. For all three criteria (Identification, Clarification and Evaluation), if the students achieve an average of 3.1 out of 4 possible, then the students are assessed as successful. All average scores were above 3.1

Actions: None at this time.

Course used for assessment: CST320 Compilers - Wilsonville
Instructor/Evaluator: Sherry Yang
Student level: Junior
Term of administration: Spring 2014
Number of students: 7
Assessed work: Paper
Type of assessment: Direct

Assessment Method: In students' first lab, they are asked to design and implement a symbol table. There are many design choices that you can make in implementing a symbol table. Some considerations include what type of data structure to use, how many symbols you should be able to handle, how fast it should be able to insert a symbol into the table, how fast should it be to search for a symbol in the table, etc. The purpose of this assignment is to improve students' abilities to think their way through content, using disciplined skill in reasoning, assessment and evaluation of results.

Critical Thinking assessment results for CST 320 for Software Program Students

#	Identify 1-4	Perspective 1-4	Evaluate Assumptions1-4	Evidence: 1-4	Implication: 1-4
1	3	3	2	1	1
2	2	1	1	1	1
3	3	3	2	2	2
4	2	2	2	1	1
5	3	3	3	3	3
6	2	2	1	2	2
7	2	3	2	1	1
Average	2.42	2.42	1.85	1.57	1.57

Data Collection Date: 4/11/2014_____ Coordinator: Sherry Yang

Evaluation of results: Overall, students were able to identify the problem and discussed some of the possible design considerations. Many of them included their personal approach, assumptions and evaluated those assumptions. The two areas where they didn't elaborate with their papers were in evaluating what they did and implication of their choices. Overall

Actions: None at this time.

Course used for assessment: CST 320 Compilers – Klamath Falls
Instructor/Evaluator: Sherry Yang
Student level: Junior
Term of administration: Spring 2014
Number of students: 17
Assessed work: Paper
Type of assessment: Direct

Assessment Method: In students' first lab, they are asked to design and implement a symbol table. There are many design choices that you can make in implementing a symbol table. Some considerations include what type of data structure to use, how many symbols you should be able to handle, how fast it should be able to insert a symbol into the table, how fast should it be to search for a symbol in the table, etc. The purpose of this assignment is to improve students' abilities to think their way through content, using disciplined skill in reasoning, assessment and evaluation of results.

Critical Thinking assessment results for CST 320 for Software Program Students

#	Identify 1-4	Perspective 1-4	Evaluate Assumptions1-4	Evidence: 1-4	Implication: 1-4
1	3	2	1	1	1
2	4	4	2	2	2
3	4	4	2	1	1
4	2	2	2	2	2
5	2	2	1	1	1
6	2	2	2	1	1
7	2	2	1	1	1
8	2	2	2	2	2
9	2	1	1	1	1
10	2	2	2	2	2
11	2	2	2	1	1
12	2	2	1	1	1
13	2	2	1	1	1
14	2	2	1	1	1
15	2	2	1	1	1
16	2	2	1	1	1
17	2	2	1	1	1
Average	2.29	2.23	1.42	1.23	1.23

Data Collection Date: 4/11/2014_____ Coordinator: Sherry Yang

Evaluation of results:
Students understood the problem and many discussed some design alternatives. However, they seemed to be lacking in discussing their assumptions and even more so in evaluating what they did and the implications of their design choice. Many selected the easiest data structure to implement but didn't discuss all of the disadvantages of that technique.

Actions: None at this time.

V. Summary of Student Learning Outcomes Results

A. 1) BS 6 - a recognition of the need for, and an ability to engage in life-long learning

PREVIOUS RESULTS:

CST-415 Computer Networks   Prof. James Long   Fall 2010

Strengths: Students understood the importance of being able to continue learning after they have completed their initial education.

Weaknesses: Although students recognized the need for continual self-learning activities, they were not convinced that advanced education or additional credentials might be necessary.

Action Items: None at this time.

No AE level assessment in 2010-2011 cycle.

CURRENT RESULTS:

CST-415 Computer Networks   Prof. James Long   Fall 2013

Strengths: None noted this time

Weaknesses: Due to heavy load in class, assessing both BS#6 and BS#9 in CST 415 on same assignment was deemed impractical.

Action Items: Next time this assessment is run, the lifelong learning assignment should be done in CST 415 with a focus on how students can be prepared for the rapidly changing force of network communications. The technical writing PSLO needs to be done in CST 326. In this class, students are already producing a technical report as part of the standard workload.

AE 4 - a recognition of the need for, and an ability to engage in life-long learning

CST 105 Computer Systems Engineering III
Strengths: freshman begins thinking about an important topic early in education cycle
Weakness: Immaturity shows in writing about lifelong learning
Action Items: Same students will be flagged and reassessed when they are seniors

CLOSING THE LOOP FROM 2010-2011 RESULTS

1. Weakness in 2010-11CST 415 of students not convinced of the necessity of advanced degrees or credentials was not assessable due to assignment scope and class load.

Action taken: Next time this assessment is run, the lifelong learning assignment should be done in CST 415 with a focus on how students can be prepared for the rapidly changing force of network communications. The technical writing PSLO needs to be done in CST 326. In this class, students are already producing a technical report as part of the standard workload.

2. Only one direct method was used for BS and no assessment was done for AE 4 (life-long learning) in 2010-2011.

Action taken: One more direct assessment was added. Paper was assigned and assessed in CST 105 Introduction in Computer Systems III course in Spring of 2014.

Weaknesses: Students at freshman level showed expected immaturity in lifelong learning. However, this will be improved as students gain experience in program.
Action Items: These same students will be given the same assignment when they are seniors in the next assessment cycle (3 years) to assess their progress

3. No record of assessment kept for Wilsonville in last cycle. In this cycle BS#6 was assessed in Wilsonville and results included in this report in CST 415 (Michael Findley) and CST 412 (Jay Bockelman). Wilsonville will use same class, reassess and record results for closing the loop in next cycle.

4. No indirect assessment was done in 2010-2011
Action taken: an Indirect Assessment was introduced in this cycle

Result: For life-long learning outcome, the lack of an indirect assessment in 2010-2011 was noted for this cycle. Subsequently, the 2013 SET exit survey was used. When asked whether the program prepared the graduates on life-long learning, 87.1% graded themselves at proficient or higher. In addition, 27 of 29 students agree or strongly agree that the program prepared them for lifelong learning.

Strengths: The proficiency percentage and number of students agreeing are far above an 80% average. The SET faculty came to the consensus that this percentage is satisfactory.
Weaknesses: None
Action Items: None at this time

B. 1) BS 8 - an ability to convey technical material through oral presentation and interaction with an audience

PREVIOUS RESULTS:

CST-412 Senior Project Development I   Prof. Calvin Caldwell   Fall 2010

Strengths: Students were strong in all criteria of this assessment activity.
Weaknesses: None.
Action Items: None at this time.

CURRENT RESULTS:

CST-412 Senior Project Development I   Prof. Calvin Caldwell   Fall 2013

Strengths: Students achieved at least 90% proficiency or high proficiency in all 5 categories
Weaknesses: None
Action Items: No actions items required previously. None required now.

2) AE 5 - an ability to communicate through oral presentation and interaction with an audience

PREVIOUS RESULTS:

CST-238 Graphical User Interface   Prof. Randal Albert Spring 2011

Strengths: The students' delivery was very strong. They were able to speak clearly and convey their tips or tricks to their fellow students.

Weaknesses: Students need to understand the role and importance of visual aids in a presentation.

Action Items: None at this time.

CURRENT RESULTS:

CST-238 Graphical User Interface   Prof. David Bishop Spring 2014
Conclusions: There is a clear increase in student performance between the 2011 and 2014 assessments in the areas of content, and visuals. This may be due to the recent change of venue for the course, as the platform for development switched from the C language and the Windows API to C#, the Windows Presentation Foundation (WPF), and the .NET platform. The choices for content under the new platform is much richer than the old, and therefore made it easier for students to choose topics close to their interests. In addition, the new platform (particularly

WPF) offers a wide variety of visual customizations which greatly enhanced many student presentations
Weaknesses: None
Action Items: No actions items required previously.

CST 105 Computer Systems Engineering III Prof Phong Nguyen Spring 2014
Strengths: students were enthusiastic and had fun overall.
Weakness: due to being freshman, students are clearly inexperienced and immature. However, this is why we assess.
Actions: we'll flag and reassess same students next cycle when they are seniors to see if the curriculum helps

CLOSING THE LOOP FROM 2010-2011 RESULTS

1. CST412 Senior Project Development I

Strengths: Students were strong in all criteria of this assessment activity previous cycle. This trend remained the same.
Weaknesses: None.
Action Items: None at this time.

2. CST 238 Graphics

Improvement: There is a clear increase in student performance between the 2011 and 2014 assessments in the areas of content, and visuals. This may be due to the recent change of venue for the course, as the platform for development switched from the C language and the Windows API to C#, the Windows Presentation Foundation (WPF), and the .NET platform. The choices for content under the new platform is much richer than the old, and therefore made it easier for students to choose topics close to their interests. In addition, the new platform (particularly WPF) offers a wide variety of visual customizations which greatly enhanced many student presentations

3. CST 105 Computer Systems Engineering III

Assessment was added to better track progress from Associate to Bachelor level. In next closing the loop, this same group will be flagged and assessment trend will be crucial in judging courses that teaches oral presentation.

4. No record of assessment kept for Wilsonville in last cycle. In this cycle BS#8 was assessed in Wilsonville and results included in this report in CST 412 (Jay Bockelman) and CST 412 (Jay Bockelman). Wilsonville will use same class, reassess and record results for closing the loop in next cycle.

5. No indirect assessment was done in 2010-2011
Action taken: an Indirect Assessment was introduced in this cycle

Note: Although the action on the outcome for oral presentation of the 2010-2011 cycle was "none at this time" for the bachelor program, the lack of an indirect assessment was noted for this cycle. Subsequently, the 2013 SET exit survey was used. When asked whether the program prepared the graduates oral presentation, 74.19% graded themselves at proficient or higher. In addition, 26 of 29 students agree or strongly agree that the program prepared them for lifelong learning. The SET faculty came to the consensus that this percentage is satisfactory.

C. 1) BS 9 - an ability to convey technical material through written reports which satisfy accepted standards for writing style

PREVIOUS RESULTS:

CST415 Computer Networks **Prof. James Long**
Strengths: Students were able to write clearly and the main ideas presented in the paper were focused.

Weaknesses: The documentation criterion was low across campus. More discussion will take place in the fall to determine an appropriate course of action. The rubric used maybe ambiguous in this specific criteria.

Action Items: Follow up during fall term.

2) AE 6 - an ability to convey technical material through written reports which satisfy accepted standards for writing style

CST 223 Programming Language **Prof. Sherry Yang**
Strengths: None.
Weaknesses: All, but the documentation criteria was the worst.
Action Items: Follow up during fall term.

CURRENT RESULTS:

CST 415 Computer Networks

Strengths: None noted this time

Weaknesses: Due to heavy load in class, assessing both BS#6 and BS#9 in CST 415 on same assignment was deemed impractical.

Action Items: Next time this assessment is run, the lifelong learning assignment should be done in CST 415 with a focus on how students can be prepared for the rapidly changing force of network communications. The technical writing PSLO needs to be done in CST 326. In this class, students are already producing a technical report as part of the standard workload.

CST 223 Programming Languages

Professor Yang left Klamath for Wilsonville and is not teaching CST 223 this quarter. Prof. Scevers is taking over the class. This is his first year so he is not ready to do this assessment. CST 105 was used instead of CST 223.

CST 105 Computer Systems Engineering III **Prof. Nguyen**

Strengths: none.
Weakness: due to being freshman, students are clearly inexperienced and immature.
Actions: we'll flag and reassess same students next cycle when they are seniors to see if the curriculum helps

CLOSING THE LOOP FROM 2010-2011 RESULTS

1. Weakness in 2010-11 CST 415 of students poor documentation was not assessable due to assignment scope and class load.

Action taken: Next time this assessment is run, the lifelong learning assignment should be done in CST 415 with a focus on how students can be prepared for the rapidly changing force of network communications. The technical writing PSLO needs to be done in CST 326. In this class, students are already producing a technical report as part of the standard workload.

2. CST 223 was replaced by CST 105 due to change in instructor in this cycle

Action taken: One more direct assessment was added. Paper was assigned and assessed in CST 105 Introduction in Computer Systems III course in Spring of 2014.

Weaknesses: Students at freshman level showed expected inexperience in technical writing. However, this will be improved as students gain experience in program.
Action Items: These same students will be given the same assignment when they are seniors in the next assessment cycle (3 years) to assess their progress. Also, program will assess if standard might be lowered for AE degree when technical writing is concerned in 100 level course.

3. No record of assessment kept for Wilsonville in last cycle. In this cycle BS#9 was assessed in Wilsonville and results included in this report in CST 432 (Jay Bockelman) and CST 334 (Jay Bockelman). Wilsonville will use same class, reassess and record results for closing the loop in next cycle.

4. No indirect assessment was done in 2010-2011
Action taken: an Indirect Assessment was introduced in this cycle

Result: For technical writing outcome, the lack of an indirect assessment in 2010-2011 was noted for this cycle. Subsequently, the 2013 SET exit survey was used. When asked whether the program prepared the graduates on technical writing, 88% graded themselves at proficient or higher. In addition, 28 of 29 students agree or strongly agree that the program prepared them for technical writing.

Strengths: The proficiency percentage and number of students agreeing are far above an 80% average. The SET faculty came to the consensus that this percentage is satisfactory.
Weaknesses: None
Action Items: None at this time

D. **BS 10 - an ability to evaluate the impact of potential solutions to software engineering problems in a global society, using their knowledge of contemporary issues and emerging software engineering trends, models, tools, and techniques**

CST 407/466 Cryptography/Embedded Security Prof. Nguyen

PREVIOUS RESULTS:

ANTH 452 Globalization   Prof. Mark Neupert

Weakness: none (100% proficiency in all criteria)

Action taken: none

CURRENT RESULTS:

ANTH 452 Globalization   Prof. Mark Neupert

Weakness: Overall scores was worse than previous cycle assessment. "Identification and application of explanatory frameworks to globalization" has a low 63% proficiency. Too low! This class was dragged down by a couple of underperforming and disengaged students. Easily the worst group of CSET students I've had in there, ever. A couple were standout students, but there wasn't the usual number of those. Usually, the CSET students are outstanding!

Action taken: Since the score was dragged down by 2 of 11 students, this is considered an anomaly. Will try again next cycle to see if indeed an anomaly occurred!

Added one more direct assessment in CST 407 Cryptography

Weakness: none (100% proficiency in all criteria)

Action taken: none

Added indirect assessment in Exit Survey

Weakness: none

Action taken: none

CLOSING THE LOOP FROM 2010-2011 RESULTS

1. Added direct (CST 407)
2. Added indirect (Exit Survey) in this cycle.

VI. **Changes Resulting from Assessment**
A. **Changes in not assessing in CST 415 both BS6 and BS9:**

Assessing BS6 and BS9 by using the same assignment was assessed to be unproductive. Instructor will assign different assignments in different classes for BS6 and BS9 net time.

B. **For BS9, CST 223 was replaced by CST 105**

Due to changes in faculty, CST 105 was used to assess BS9

C. **Added more assessment in freshman level to track progress**

More freshman level classes were added to assess:

BS6 : CST 105

BS8: CST 105

BS9: CST 105

D. **Added CST 407 Cryptography to be assessed for globalization**

Appendix A
Course Mapping Matrices

(Note: Courses shaded in red will be used to assess the respective SLOs)

BS#6, AE#4 - a recognition of the need for, and an ability to engage in life-long learning				
Course	**Teach**	**Eval**		
CST 102 – Introduction to Computer Systems	L	L		**E**- Extensive - a major focus of the course
CST 105 – Introduction to Computer Systems III	L	L		
CST 116 – C++ Programming I				**M**- Moderate - subject explicitly discussed in and class materials provided
CST 126 – C++ Programming II				**L**- Little explicit discussion - student may gain the skill due to activities
CST 130 – Computer Organization				
CST 131 – Computer Architecture				
CST 136 – Object Oriented Programming with C++				
CST 162 – Introduction to Digital Logic				
CST 211 – Data Structures		L		
CST 223 - Concepts of Programming Languages				
CST 229 – Grammars				
CST 236 - Software System Testing				
CST 238 – GUI Programming		M		
CST 240 – Unix				
CST 250 – Assembly Language Programming				
CST 276 - Software Design Patterns				
CST 316 – Software Process Management		E		
CST 326 – Software Design and Implementation I		E		
CST 336 – Software Design and Implementation II		E		
CST 320 – Compiler Methods				
CST 324 – Database Systems and Design		L		
CST 334 – Project Proposal				
CST 352 – Operating Systems		M		
CST 412 – Senior Development Project		E		
CST 422 – Senior Development Project		E		
CST 432- Senior Development Project		E		
CST 415 – Computer Networks		E		

AE#4 - a recognition of the need for, and an ability to engage in life-long learning				
Course	**Teach**	**Eval**		
CST 102 – Introduction to Computer Systems	L	L		**E**- Extensive - a major focus of the course
CST 105 – Introduction to Computer Systems III	L	L		
CST 116 – C++ Programming I				**M**- Moderate - subject explicitly discussed in and class materials provided
CST 126 – C++ Programming II				**L**- Little explicit discussion - student may gain the skill due to activities
CST 130 – Computer Organization				
CST 131 – Computer Architecture				
CST 136 – Object Oriented Programming with C++				
CST 162 – Introduction to Digital Logic				
CST 211 – Data Structures		L		
CST 223 - Concepts of Programming Languages				
CST 236 - Software System Testing				
CST 238 – GUI Programming		M		
CST 240 – Unix				
CST 276 - Software Design Patterns				

BS#8 - an ability to convey technical material through oral presentation and interaction with an audience				
Course	**Teach**	**Eval**		
CST 102 – Introduction to Computer Systems				**E**- Extensive - a major focus of the course
CST 105 – Introduction to Computer Systems III	L	L		
CST 116 – C++ Programming I				**M**- Moderate - subject explicitly discussed in and class materials provided
CST 126 – C++ Programming II				**L**- Little explicit discussion - student may gain the skill due to activities
CST 130 – Computer Organization				
CST 131 – Computer Architecture				
CST 136 – Object Oriented Programming with C++				
CST 162 – Introduction to Digital Logic				
CST 211 – Data Structures				
CST 223 - Concepts of Programming Languages				
CST 229 – Grammars				
CST 236 - Software System Testing				
CST 238 – GUI Programming	L	L		
CST 240 – Unix				
CST 250 – Assembly Language Programming				
CST 276 - Software Design Patterns				
CST 316 – Software Process Management		L		
CST 326 – Software Design and Implementation I		L		
CST 336 – Software Design and Implementation II		L		
CST 320 – Compiler Methods				
CST 324 – Database Systems and Design				
CST 334 – Project Proposal				
CST 352 – Operating Systems				
CST 412 – Senior Development Project				
CST 422 – Senior Development Project				
CST 432 – Senior Development Project	L	L		
CST 415 – Computer Networks				

AE#5 depending on canceling #5 - an ability to convey technical material through oral presentation and interaction with an audience				
Course	**Teach**	**Eval**		
CST 102 – Introduction to Computer Systems	L	L		**E**- Extensive - a major focus of the course
CST 105 – Introduction to Computer Systems III	L	L		
CST 116 – C++ Programming I				**M**- Moderate - subject explicitly discussed in and class materials provided
CST 126 – C++ Programming II				**L**- Little explicit discussion - student may gain the skill due to activities
CST 130 – Computer Organization				
CST 131 – Computer Architecture				
CST 136 – Object Oriented Programming with C++				
CST 162 – Introduction to Digital Logic				
CST 211 – Data Structures		L		
CST 223 - Concepts of Programming Languages				
CST 236 - Software System Testing				
CST 238 – GUI Programming		M		
CST 240 – Unix				
CST 276 - Software Design Patterns				

BS#9 - an ability to convey technical material through written reports which satisfy accepted standards for writing style				
Course	**Teach**	**Eval**		
CST 102 – Introduction to Computer Systems	L	L		**E**- Extensive - a major focus of the course
CST 105 – Introduction to Computer Systems III	L	L		
CST 116 – C++ Programming I				**M**- Moderate - subject explicitly discussed in and class materials provided
CST 126 – C++ Programming II				**L**- Little explicit discussion - student may gain the skill due to activities
CST 130 – Computer Organization				
CST 131 – Computer Architecture				
CST 136 – Object Oriented Programming with C++				
CST 162 – Introduction to Digital Logic				
CST 211 – Data Structures				
CST 223 - Concepts of Programming Languages				
CST 229 – Grammars				
CST 236 - Software System Testing				
CST 238 – GUI Programming				
CST 240 – Unix				
CST 250 – Assembly Language Programming				
CST 276 - Software Design Patterns				
CST 316 – Software Process Management		M		
CST 326 – Software Design and Implementation I		M		
CST 336 – Software Design and Implementation II		M		
CST 320 – Compiler Methods				
CST 324 – Database Systems and Design				
CST 334 – Project Proposal	L	E		
CST 352 – Operating Systems				
CST 412 – Senior Development Project				
CST 422 – Senior Development Project				
CST 432 – Senior Development Project				
CST 415 – Computer Networks				

AE#6 - an ability to convey technical material through written reports which satisfy accepted standards for writing style				
Course	**Teach**	**Eval**		
CST 102 – Introduction to Computer Systems	L	L		**E**- Extensive - a major focus of the course
CST 105 – Introduction to Computer Systems III	L	L		
CST 116 – C++ Programming I				**M**- Moderate - subject explicitly discussed in and class materials provided
CST 126 – C++ Programming II				**L**- Little explicit discussion - student may gain the skill due to activities
CST 130 – Computer Organization				
CST 131 – Computer Architecture				
CST 136 – Object Oriented Programming with C++				
CST 162 – Introduction to Digital Logic				
CST 211 – Data Structures				
CST 223 - Concepts of Programming Languages				
CST 236 - Software System Testing				
CST 238 – GUI Programming				
CST 240 – Unix				
CST 276 - Software Design Patterns				

BS#8 - an ability to convey technical material through oral presentation and interaction with an audience				
Course	**Teach**	**Eval**		
CST 102 – Introduction to Computer Systems				**E**- Extensive - a major focus of the course
CST 105 – Introduction to Computer Systems III				
CST 116 – C++ Programming I				**M**- Moderate - subject explicitly discussed in and class materials provided
CST 126 – C++ Programming II				**L**- Little explicit discussion - student may gain the skill due to activities
CST 130 – Computer Organization				
CST 131 – Computer Architecture				
CST 136 – Object Oriented Programming with C++				
CST 162 – Introduction to Digital Logic				
CST 211 – Data Structures				
CST 223 - Concepts of Programming Languages				
CST 229 – Grammars				
CST 236 - Software System Testing				
CST 238 – GUI Programming				
CST 240 – Unix				
CST 250 – Assembly Language Programming				
CST 276 - Software Design Patterns				
CST 316 – Software Process Management				
CST 326 – Software Design and Implementation I				
CST 336 – Software Design and Implementation II				
CST 320 – Compiler Methods				
CST 324 – Database Systems and Design				
CST 334 – Project Proposal				
CST 352 – Operating Systems				
CST 412 – Senior Development Project				
CST 422 – Senior Development Project				
CST 432 – Senior Development Project				
CST 415 – Computer Networks				

ANTH 452 - Globalization	E	E		